

EASTERN WASHINGTON'S GROUND SQUIRRELS

... and the wildlife that depend on them



Burrowing owl
Derek Stinson, WDFW

Ground squirrels are interesting animals because of their social behavior and ability to live in dry habitats. They often live in colonies and give alarm calls to warn closely related individuals of danger. Ground squirrels are important food for many species including badgers, ferruginous hawks (a threatened species in Washington), and prairie falcons. Yellow-bellied marmots, or 'rockchucks,' are members of the squirrel family too, and are important prey for golden eagles.

The burrows that squirrels, marmots, and badgers dig are used by burrowing owls for nesting and they provide shelter for snakes, lizards, tiger salamanders, and many invertebrate species. Three species - the Washington ground squirrel, Townsend's ground squirrel, and Columbian ground squirrel - are declining in Washington due to poisoning, shooting, and loss of grassland and steppe habitat. Marmots may also be declining.



American badger
Gerald and Buff Corsi © California Academy of Sciences



Washington ground squirrel



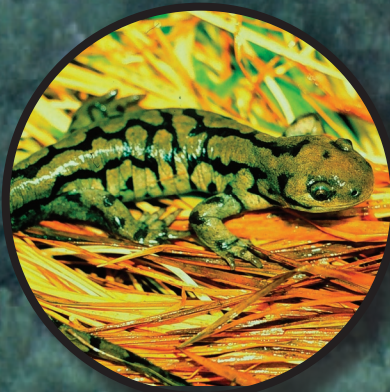
Townsend's ground squirrel



Columbian ground squirrel



Yellow-bellied marmot



Tiger salamander
Marc Hayes, WDFW



Prairie falcon
Bob Davies, WDFW



Golden eagle
Jim Watson, WDFW



Northern harrier
Rod Gilbert



Ferruginous hawk
Jim Watson, WDFW



Striped whipsnake
Lori Salzer, WDFW



Washington Department of
FISH AND WILDLIFE

Help conserve Washington's ground squirrels and all the species that depend on them.

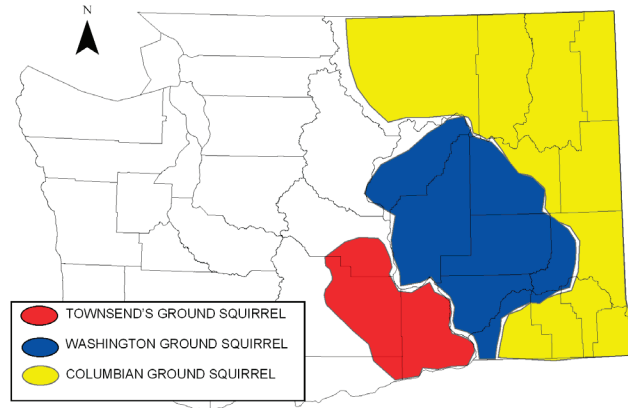
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Ground squirrels eat plants and their annual activity reflects the growing season. Squirrels emerge from their burrows in early spring as fields become green. Females usually have litters of 2-8 pups. They are active for 4-5 months until plants dry out in summer. During this time period, they must store energy by gaining weight to stay alive during hibernation. Ground squirrels have long hibernation periods, spending 7-8 months inactive and underground. While hibernating, their heart rate slows to 1-2% of normal and their body temperature drops to 2 degrees above the surrounding soil. When they emerge in the spring, they will have lost 25-55% of their body weight.

In addition to creating shelter for other species of animals, the burrowing activity of squirrels also loosens, aerates, and mixes soil, bringing nutrients from deep layers to the surface. Burrowing influences soil fertility, plant species composition, and water holding capacity. The map shows the approximate historical range of 3 ground squirrel species; they no longer exist in parts of these areas, particularly where little habitat remains.



Townsend's ground squirrels ($\frac{1}{4}$ - $\frac{3}{4}$ lb; body is 6 $\frac{1}{4}$ -7") are only found in Washington. Washington ground squirrels ($\frac{1}{4}$ - $\frac{2}{3}$ lb; body is 6-7") are also found in northern Oregon. Columbian ground squirrels ($\frac{3}{4}$ -1 $\frac{3}{4}$ lbs, 9-11") are also found in parts of Oregon, Idaho, Montana, Alberta, and British Columbia. Yellow-bellied marmots (3 $\frac{1}{2}$ -11lbs, 13-23") are potentially found in all parts of eastern Washington and in much of the western United States. California ground squirrels ($\frac{3}{4}$ -2 lbs, 8 $\frac{1}{2}$ -10 $\frac{1}{2}$ ") are newcomers to Washington found mostly in Klickitat and Yakima counties, but have been expanding their range north and east.



How many Washington ground squirrels do you see in the picture?
(answer below)

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For ecological and economic reasons, ground squirrels should not be killed needlessly; and the Washington ground squirrel is protected by state law.

Kids-----What am I?

Draw a line from the description to the species name
(hint: you won't use all the answers; check answers below).

- 1) I eat lots of ground squirrels; I am a good digger and I dig out hibernating ground squirrels.
- 2) I am a big heavy squirrel that can weigh over 10 pounds; I often make a den in rock piles.
- 3) I eat mostly mice and insects and I make my nest in holes dug by squirrels and badgers.
- 4) I nest on cliffs and tall snags and sometimes dine on unwary marmots.
- 5) I am one of the smallest ground squirrels in Washington, where I am a protected species.
- 6) I spend much of the year underground and will use the tunnels of squirrels and pocket gophers, but during spring rains I come out to lay eggs in ponds.



BADGER

YELLOW-BELLIED MARMOT

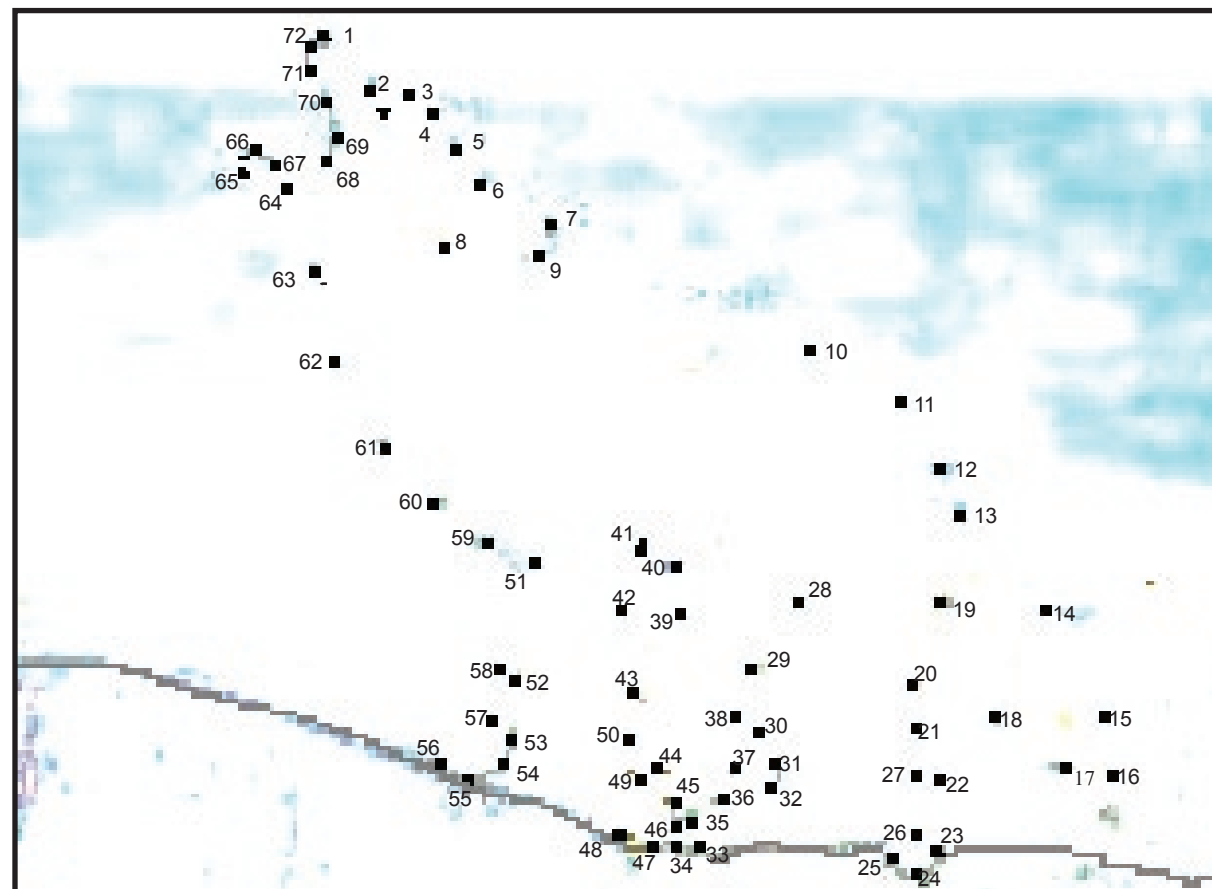
TIGER SALAMANDER

THE EASTER BUNNY

BURROWING OWL

WASHINGTON GROUND SQUIRREL

GOLDEN EAGLE



Connect the Dots

There is another animal that eats lots of ground squirrels. Connect the dots in order at left to find out what it is. Then finish spelling its name below.

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Check out our web site:
<http://wdfw.wa.gov>

Answers: 1) badger 2) yellow-bellied marmot 3) burrowing owl 4) golden eagle 5) Washington ground squirrel 6) tiger salamander; connect the dots = coyote; there are 6 squirrels in the picture (look close, one is hiding on the right).